



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,051	01/21/2004	Matti Parnanen	037145-0901	4470
30542	7590	07/24/2007		
FOLEY & LARDNER LLP			EXAMINER	
P.O. BOX 80278			NGUYEN, PHILLIP H	
SAN DIEGO, CA 92138-0278				
			ART UNIT	PAPER NUMBER
			2191	
			MAIL DATE	DELIVERY MODE
			07/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,051

Applicant(s)

PARNANEN ET AL.

Examiner

Phillip H. Nguyen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response the amendment filed on 5/14/2007. Claims 1-23 remain pending and have been considered below.

Claim Rejections - 35 USC § 112

2. The amendment filed on 5/14/2007 overcomes the rejection set forth to claims 1 and 11. Therefore, the rejection is withdrawn.

Claim Rejections - 35 USC § 101

3. The amendment filed on 5/14/2007 does not meet the requirement for 35 USC 101 statutory. Therefore, Examiner maintains the rejection set forth to claims 1-20.

- Regarding claims 8 and 17, recite a device/system but it appears reasonable to interpret this device/system by one of ordinary skill in the art as software, per se. Applicant's specification provides no explicit and deliberate definition of the components ("consumer application", "provider application" and "application interworking framework") that make up the device/system other than they are could be software components, which are directed to functional descriptive material, per se, and are therefore, non-statutory. The descriptions or expressions of the software are not physical "things." They are neither computer hardware components nor statutory processes, as they are not "acts" being performed. Such claimed software do not define any structural and functional interrelationships between the software and other claimed elements of a

computer (device) which permit the software's functionality to be realized. In contrast, a claimed computer readable medium encoded with a software (computer program) is a computer hardware element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Claims 9-16 and 18-20 directly or indirectly depend on claims 8 and 17 respectively, and therefore, suffer the same deficiency.

Response to Arguments

4. Applicant's arguments filed 5/14/2007 have been fully considered but they are not deemed persuasive.

Applicant asserts on pages 5-6 that Mehta fails to teach adding features to an application.

Examiner respectfully disagrees with the allegation as argued. Mehta discloses **"dynamically download new and updated applications from the MAS for use on their devices."** Updating an application is to add new features or replace existed features to an application. Therefore, updating an application is in fact the same as adding feature to an application.

Applicant further asserts on pages 6 that neither Mehta nor Rothman discloses an interface for a consumer application and provider application such that a feature interest is matched with one of the features available from the provider application.

Examiner respectfully disagrees with the allegation as argued. In fact Mehta discloses an interface for a consumer application and provider application such that a feature interest is matched with one of the features available from the provider application. Mehta discloses **"the MAS provides the ability to submit new content, request downloads of content and application discovery. Application discovery returns a list of content that can be downloaded that match criteria that are designated by the subscriber. The MAS returns a list of content based upon subscriber preferences."** (see at least page 2, second paragraph). Mehta further discloses **"The MAS supports an extensible command processing engine and supports the direct invocation of the various handlers, modules, and other structure that are components of the MAS, either through HTTP requests or through an application program interface (an API)."** (see page 14, second paragraph). Another words, the MAS is a framework that implements an application program interface between client and provider. Rothman also teaches **"a system/method of updating firmware in an operating system via the use of an OS-agnostic API."** (see Abstract and paragraph [0016]. Again, updating firmware to an operating system is the same as adding new feature or replacing existed features to an operating system. Therefore, updating an operating system software is the same as adding feature to an application. Rothman teaches the use of API for the interface between provider and client for adding updating or adding new features to an operating system.

Art Unit: 2191

Finally, Mehta alone is a good reference for a 102(b) rejection. However, Examiner gave a 103(a) because Rothman teaches an analogous art that also using API as an interface for updating firmware to an application. Furthermore, the claim does not explicitly say that the application is not for controlling hardware.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-1] Interpretation of Claims-Broadest Reasonable Interpretation. During patent examining, the pending claims must be given their broadest reasonable interpretation consistent with the specification. Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claims, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541, 550-51 (CCPA 1969).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mehta et al. (International Application Publication No.: WO 02/44892 A2), in view of Rothman et al. (United States Patent Application Publication No.: US 2004/0230963 A1).

As per claim 1:

Mehta discloses a method for adding computer software features dynamically to a software application by establishing a framework for a application programming interface (API) that adds a feature to an application, the method comprising:

- requesting a feature matching a consumer interest of a consumer application (**"request downloads of content and application discovery...a list of content that can be downloaded that match criteria that are designated by the subscriber"** page 2, lines 16-18);
- using the consumer interest and a feature capability to identify a provider (**"the MAS provides the ability to submit new content, request downloads of content and application discovery"** page 2, lines 15-16, **this means, MAS is a provider and has been identified by subscriber**);
- providing the feature, if the provider is identified, to the consumer application (**"MAS returns a list of content based upon subscriber preferences"** page 2, line 19); and
- utilizing the feature at the consumer application (**"an upgrade or a more recent version of software that will be run on the subscriber device"** page 14, lines 5-6, **utilizing is running or executing application**).

Mehta does not explicitly disclose the use of framework.

However, Rothman discloses an analogous method using framework **"to provide a standardized mechanism to enable system and ad-in card firmware to be updated in an OS agnostic manner"** paragraph 0016, lines 2-4).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Mehta's approach to use Rothman's framework for adding features to software application. One of ordinary skill in the art would have been motivated to modify Mehta's approach to use framework because **"framework API provides an abstracted interface that supports firmware updates without requiring intimate knowledge of the firmware being updated"** (paragraph 0016, lines 13-15); **"enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices, and even over computer network"** (paragraph 0017, lines 12-17).

As per claim 2:

Mehta and Rothman disclose the method as in claim 1 above; and Rothman further discloses:

- using generic parameters in application interworking framework application programming interface (APIs) (**"variables are intended for use as a means to store data that passed between the EFI environment implemented in the platform and EFI OS loaders..."** paragraph 0042, lines 4-7).

As per claim 3:

Mehta and Rothman disclose the method as in claim 1 above; and Rothman further discloses:

Art Unit: 2191

- wherein the application interworking framework interfaces the consumer application with the feature provider ("**EFI is a public industry specification that describes an abstract programmatic interface between platform firmware and shrink-wrap operation systems or other custom application environments**" paragraph 0017, lines 6-8).

As per claim 5:

Mehta and Rothman disclose the method as in claim 1 above; and Mehta further discloses:

- adding a feature user interface element along with the feature ("**refer to content in the form of applications and resources...user interface screen displays, code flows, menu**" page 10, line 22).

As per claim 6:

Mehta and Rothman disclose the method as in claim 5 above; and Mehta further discloses:

- wherein the feature user interface element comprises menu commands and a setting page or other user interface elements ("**refer to content in the form of application and resources... also menu options**" page 10, line 23).

Art Unit: 2191

As per claim 7:

Mehta and Rothman disclose the method as in claim 5 above; and Rothman further discloses:

- wherein the application interworking framework implements two application program interface (APIs), including a consumer API and a set of provider APIs, wherein the provider APIs match the desired user interface elements ("A protocol typically contains a set of APIs" paragraph 0022, the idea is using multiple APIs).

As per claim 8:

Mehta disclose a device that adds features dynamically to a software application such that a feature provided by a software program can be added to a software platform program for the device, the device comprising:

- a consumer application ("MAS 105" page 11, line 4) that publishes a feature interest indicating what features the said consumer application desires to have ("the application are then verified, published, and provisioned to the subscriber devices 101 by the MAS 105 when requested" page 11, lines 5-6); and
- at least one provider application that has at least one features available ("content provider 106 provide applications to the MAS 105, through or by permission of the carrier service 104" page 11, line 4).

Mehta does not explicitly disclose:

Art Unit: 2191

- an application interworking framework that provides an interface for the said consumer application and the said provider application such that the said features interest is matched with one of the features available from the said provider application.

However, Rothman discloses an analogous method using framework "to provide a standardized mechanism to enable system and ad-in card firmware to be updated in an OS agnostic manner (see paragraph 0016, lines 2-4).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Mehta's approach to use Rothman's framework for adding features to software application. One of ordinary skill in the art would have been motivated to modify Mehta's approach to use framework because **"framework API provides an abstracted interface that supports firmware updates without requiring intimate knowledge of the firmware being updated"** (paragraph 0016, line 13-15); **"enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices, and even over computer network"** (paragraph 0017, lines 12-17).

As per claim 9:

Mehta and Rothman disclose the device as in claim 15 above; and Mehta further discloses:

Art Unit: 2191

- wherein the new consumer application is an application provided by a terminal manufacturer (**"The applications are stored locally in a carrier's application data repository (which may be located in the MAS or at the carrier's premises"** page 14, lines 6-8).

As per claim 10:

Mehta and Rothman disclose the device as in claim 15 above; and Mehta further discloses:

- wherein the new consumer application is an application provided by a third party to a user of the device (**"the application are stored in trusted third party servers"** page 14, line 8).

As per claim 11:

Mehta and Rothman disclose the device as in claim 15 above; and Mehta further discloses:

- wherein the new consumer application integrates into the device as if part of an original group of software applications for the device (**"an upgrade or a more recent version of software that will run on the subscriber device"** page 14, lines 16-17).

Art Unit: 2191

As per claim 12:

Mehta and Rothman disclose the device as in claim 15 above; and Rothman further discloses:

- wherein generic parameters are used in application interworking framework application programming interface (APIs) ("**variables are intended for use as a means to store data that passed between the EFI environment implemented in the platform and EFI OS loaders...**" paragraph 0042, lines 4-7).

As per claim 13:

Mehta and Rothman disclose the device as in claim 15 above; and Mehta further discloses:

- wherein the feature interest of the new consumer application comprises menu options not on the device before introduction of the new consumer application to the device ("**submit new content, request downloads of content and application discovery**" page 2, lines 15-16; "**content in the form of applications and resources... menu options**" page 10, line 23).

As per claim 14:

Mehta and Rothman disclose the device as in claim 15 above; and Mehta further discloses:

- wherein user interface elements corresponding to the matched features are placed in the interest placeholders ("**data repository**" page 14, line 7).

As per claim 15:

Mehta and Rothman disclose the device as in claim 8 above; and Rothman further discloses:

- wherein the consumer application is a new consumer application ("**the MAS provides the ability to submit new content**" page 2, line 15).

As per claim 16:

Mehta and Rothman disclose the device as in claim 8 above; and Rothman further discloses:

- wherein the at least one feature available is a user interface feature based on the feature interest ("**user interface screen display**" page 10, line 23).

As per claim 17:

Mehta discloses a system for adding features dynamically to a software application, the system comprising:

- a consumer application that publishes a feature interest ("**the applications are then verified, published, and provisioned to the subscriber devices 101 by the MAS 105 when requested**" page 11, lines 5-6) and identifies user interface resources needed based on the feature interest ("**verifying**

that the device can support the API and resource requirements of the content" page 2, lines 24-15);

- a provider application that publishes a provider capability ("**content providers 106 provide applications to the MAS 105, through or by permission of the carrier service 104**" page 11, line 4) and identifies user interfaces resources available for a feature ("**verifying that the device can support the API and resource requirements of the content**" page 2, lines 24-15); and

Mehta does not explicitly disclose:

- an application interworking framework that provides an interface for the consumer application and the provider application such that the feature interest is matched with the provider capability and the user interface elements are added from the provider application to the consumer application

However, Rothman discloses an analogous method using framework "**to provide a standardized mechanism to enable system and ad-in card firmware to be updated in an OS agnostic manner**" paragraph 0016, lines 2-4).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Mehta's approach to use Rothman's framework for adding features to software application. One of ordinary skill in the art would have been motivated to modify Mehta's approach to use framework because "**framework API provides an abstracted interface that supports firmware updates without requiring intimate knowledge of the firmware being updated**" (paragraph

Art Unit: 2191

0016, line 13-15); **“enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices, and even over computer network”** (paragraph 0017, lines 12-17).

As per claim 18:

Mehta and Rothman disclose the system as in claim 17 above; and further disclose:

- wherein the consumer application interfaces (**“the MAS supports an extensible command processing engine and supports the direct invocation of the various handlers, modules, and other structures that are components of the MAS... an application programming interface (API)”** see Mehta page 14, lines 18-21) with the application interworking framework using an application programming interface (API) (**“framework API”** see Rothman paragraph 0016, line 13).

As per claim 19:

Mehta and Rothman disclose them system as in claim 17 above; and Mehta further discloses:

- wherein the consumer application obtains user interface elements from other providers (**“the downloaded application may be for example, a new”** page 14, line 15).

Art Unit: 2191

As per claim 20:

Mehta and Rothman disclose the system as in claim 17 above; and Mehta further discloses:

- wherein the client device is a mobile telephone (**"the subscriber devices 101 comprise ...such as wireless handsets, phones, ..."** page 11, lines 18-21).

As per claim 21:

Mehta discloses a computer program product, embodied on a computer readable medium, comprising:

- computer code configured to:
 - o provide a consumer application interest resource for a consumer application specifying at least one user interface element (**"the applications are then verified, published, and provisioned to the subscriber devices 101 by the MAS 105 when requested"** page 11, lines 5-6);
 - o store user interface element corresponding to the consumer application interest resource in a file (**"the application are stored locally in carrier's application data repository"** page 14, lines 6-7);
 - and
 - o add said user interface element to the consumer user interface (**"the downloaded application may be an upgrade or a more recent**

version of software that will run on the subscriber device” page

14, lines 15-16).

Mehta does not explicitly disclose:

- o communicate said user interface element to an application interworking framework; and

However, Rothman discloses an analogous method using framework **“to provide a standardized mechanism to enable system and ad-in card firmware to be updated in an OS agnostic manner”** paragraph 0016, lines 2-4).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Mehta’s approach to use Rothman’s framework for adding features to software application. One of ordinary skill in the art would have been motivated to modify Mehta’s approach to use framework because **“framework API provides an abstracted interface that supports firmware updates without requiring intimate knowledge of the firmware being updated”** (paragraph 0016, lines 13-15); **“enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices, and even over computer network”** (paragraph 0017, lines 12-17).

As per claim 22:

Mehta and Rothman disclose the computer program product as in claim 21 above; and Rothman further discloses:

Art Unit: 2191

- computer code to generate a class of generic parameters ("**There are tow subclasses of DXE drivers**" paragraph 0028, line 1).

As per claim 23:

Mehta and Rothman disclose the computer program product as in claim 21 above; and Rothman further discloses:

- computer code to pass arguments within the application interworking framework ("**variables are intended for use as a means to store data that is passed between the EFI environment implemented in the platform**" paragraph 0042).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehta et al. (International Application Publication No.: WO 02/44892 A2) and Rothman et al. (United States Patent Application Publication No.: US 2004/0230963 A1) as applied to claim 1 above, and further in view of Chandersekaran et al. (United States Patent No.: US 6,335,972 B1).

As per claim 4:

Mehta and Rothman disclose the method as in claim 1 above, but does not explicitly disclose:

Art Unit: 2191

- wherein the application interworking framework interfaces the consumer application with the feature provider using dynamic link library (DLL) function call.

However, Chandrasekaran discloses the use of dynamic link library (DLL) function call ("**the SKMF and a set of service providers may be bundled into a dynamic link library (DLL) with well-defined exported interface**" col. 24, lines 35-36).

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Mehta's approach to make use of dynamic link library (DLL). One of ordinary skill in the art would have been motivated to use dynamic link library to access function and program dynamically.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2191

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
7/13/2007


WEI ZHEN
SUPERVISORY PATENT EXAMINER